

# **R T C C**   **Real Time Combustion Controller**

*Combustion Optimization Instrument*

**Background Information**

## **PRISM Strategies, Inc.**

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**November 2003**

# PRISM: Company Mission

## **Company Mission:**

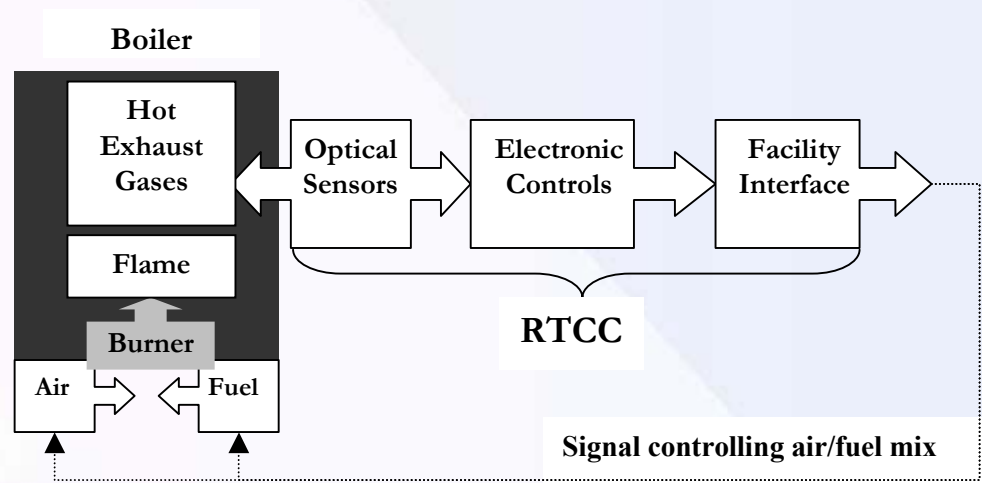
PRISM's mission is to use optical measurement to maximizes fuel efficiency by accurately measuring flame combustion products to control boiler operations in commercial and industrial applications.

## **Goals for Growth Forum:**

- Business model feedback
- Management team & advisory board recruitment
- Working capital to seed business
- Introductions to energy management organizations

# PRISM: Product Overview

- **Real-Time Combustion controller (RTCC) measures & controls combustion efficiency**
  - Receives radiation information in real-time
  - Optics convert information to digital signal
  - Maintains a stoichiometric air-to-fuel ratio



# PRISM: Value Proposition

- **Customer Value Proposition**
  - Fuel economy
    - RTCC delivers 3% to 7% fuel economy
    - Payout of 1 – 18 months (6,000 - 300 hp boilers)
    - Example: 1000 hp boiler, natural gas \$6.50/mcf, 5% fuel economy
      - » Target fuel savings - \$84,000 per year
      - » Payback - eight months
  - Environmental impact
    - NOx neutral
  - Remote monitoring

# PRISM: Background Info

## RTCC

- 1995 Technology developed & tested technology under US DOE grant
- 1997 Patent issued to MSU for the Real-Time Combustion Controller

## PRISM

- Principle of PRISM involved with RTCC since 1998
- Formed company in 2003
  - Ohio S corporation
  - Owned by co-founders

# PRISM: Target Market

## Market Size

- \$3.0 billion commercial, industrial & electric utility boiler market in North America
  - Commercial & industrial market \$2.2 billion
    - Commercial: district energy, hospitals, universities
    - Industrial: chemical, food, pulp & paper, primary metals, refining
  - Electric utility generation station market \$800 million

## Target Market Niche

- Commercial
  - District energy market
    - 5,000 facilities in the US

# PRISM: Customer & Market Trends

## **Characteristics of Niche Customer**

- Boiler retrofits sizes 600 hp – 6,000 hp
- Burn natural gas
- Several boilers in one location
- Located in Northeast & North Central of US

## **Market Trends**

- Higher Fuel Prices
  - Natural gas & fuel oil prices
- Aging Boiler Fleet
  - 80% pre-1978



# PRISM: Competitive Analysis

## PRISM's competitive advantage - cost & sensor capability

	RTCC	Boiler Control Systems	Highly Engineered Systems
<b>Companies</b>	PRISM	Honeywell, regional firms	GE Power, Allen-Bradley, Seimans
<b>Cost*</b>	\$75,000	\$150,000–\$300,000	\$500,000 - up
<b>System Composition</b>	Fully integrated, single component control system	Complex, multiply-component control system	Highly complex system of sensors, controls & software
<b>Carbon Monoxide (CO) Control</b>	Yes Level Zero Device	No	No
<b>Fuel Control</b>	Multi-fuel	Single-fuel	Multi-fuel
<b>Target Market</b>	600 – 6,000 hp	3,000 – 10,000 hp	10,000 hp - up

\*includes cost of instrument, controls, engineering, installation



# PRISM: Management Team

## Management Team

- **Matthew Brinn, Co-Founder & President.** Previously a vice-president at a software startup. Also worked for Battelle Memorial Institute gaining experience with technology commercialization at Federal labs.
- **Mark Galgano, Co-Founder & COO.** Over 35 years of project and sales experience. Held senior sales positions with environmental and engineering companies.
- **Robert N. Christian, Manager Agency Operations.** Owned and operated a mechanical engineering firm as well as a manufacturer's representative agency.
- **Jerome Ennis, Chief Engineer.** Extensive experience as an engineering manager. Lead engineer on the design and testing of eight large combustion control projects in the last ten years.

## Other Key Personnel

- **Walter Mruk** – Lead design engineer to PRISM. Founder and principal of Precision Electro-Optics, Inc., which designs & markets novel, patented electro-optic equipment to both military & OEM customers.

## 2004 Hires

- Business Manager
- Assistant Business Manager
- Field Support Engineer
- CFO

# PRISM: Financials

	Projected (000)		
	2004	2005	2006
Sales	\$ 1,980	\$ 4,730	\$ 6,655
COGS	\$ 900	\$ 2,150	\$ 3,025
GM	\$ 1,080	\$ 2,580	\$ 3,630
Operating Exp	\$ 1,280	\$ 2,295	\$ 3,144
Net Income	\$ (200)	\$ 285	\$ 486
Return on Equity	\$ (38%)	\$ 30%	28%

## Assumptions:

- Sales channel established
- Contract manufacture
- Investment secured
- A/R cycle 55 days

## Investment needs:

- \$550,000 in working capital

# PRISM: Achievements

## **2003 Achievements**

- May – secured exclusive license for RTCC
- June – pre-sold two RTCC instruments
- June – first runner-up Case Western Reserve University business plan competition
- July –contracted Precision Electro Optics to design & manufacture RTCC instrument

## **Future Goals**

- December 2003 –complete commercial instrument
- January 2004 – install instrument at customer site
- Winter 2003/4 – secure investor financing
- First half of 2004 – sell eight RTCC units